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EXAMINER

NGUYEN, NAM V

ART UNIT PAPER NUMBER

2635

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/692,538

Applicant(s)

MOODY ET AL.

Examiner

Nam V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to:
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This communication is in response to applicant's response to amendment A which is filed June 5, 2003.

An amendment to the claims 1 and 6 have been entered and made of record in the application of Moody et al. for an "asset tracking using wireless LAN infrastructure" filed October 20, 2000.

The new claim 15 is introduced.

Claims 1-15 are pending.

Response to Arguments

The corrected or substitute drawing were received on June 5, 2003. These drawing are accepted. Applicant is advised to submit new formal drawings including changes required by the proposed drawing correction filed on June 5, 2003, which has been approved by the examiner.

The formal drawing submitted on April 15, 2003 is not accepted because the Figures are unrelated to the Applicant's invention and not the same as the original drawings.

In view of applicant's arguments with respect to the reference numeral 190 in the drawing of Figure 5, the examiner has withdrawn the drawings objections.

The amended paragraphs in specification have been added the reference numeral 185 was received on June 5, 2003. Since numeral 185 has been added from the specification, there are no longer any reference numerals missing from the specification. Therefore, the specification is now complied.

Applicant's amendment and arguments with respect to claims 1 and 6, filed June 5, 2003 have been fully considered but are moot in view of the new ground(s) of rejection.

On pages 8 to 11, Applicant's arguments with respect to the smart interrogator (22) of the invention in Bolavage et al. is not a wireless access point of a network is not persuasive. The claims in a pending application should be given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974).

Bolavage et al. disclose a system includes a logistic server (10) connected to a corporate data warehouse server 12 and to a local area network (LAN) 14. Logistic server 10 is connected to a gateway 16 which in turn is connected to a local client 18 and a smart interrogator 22. There may be many other clients 18. The smart interrogator 22 is connected to a plurality of tags 30, 32, 34. For purposes of explanation, only a single smart interrogator 22 is depicted, although the invention contemplates having many smart interrogators 22 distributed around the world. Further, although the smart interrogator 22 is depicted as connected to only three tags 30, 32, 34, each smart interrogator 22 can be connected to any number of tags. Each smart interrogator 22 interrogates on multiple frequencies. As the smart interrogator 22 does not know on which frequencies tags 30, 32, 34 can be interrogated, the interrogator 22 scans and interrogates a

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plurality of frequencies, corresponding to possible frequencies on which tags 30, 32, 34 might communicate. The interrogator 22 similarly does not know on which frequencies tags 30, 32, 34 can respond, so after interrogating it listens to a plurality of frequencies on which tags 30, 32, 34 might respond (column 4 line 57 to column 5 lines 13; see Figure 1).

As defined by claims 1 and 6, an access point is to provide connectivity between wireless-equipped devices and a standard wireless data network is a local area network or a satellite communication network or a local client server network. Therefore, a smart interrogator 22 is an access point of a wireless data network.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolavage et al. (US# 6,509,828) in view of Heiman et al. (US# 6,587,034).

Referring to claims 1 and 6, Bolavage et al. disclose a transponder (30) and an asset tracking system (10) (column 2 lines 16 to 27; column 4 lines 47 to 56; see Figure 1) including

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a computer network (10 and 14) (i.e. logistics server and Local Area Networks computers) supporting a plurality of wireless links (i.e. wireless from tags to the interrogator) from respective wireless access points (22) (i.e. smart interrogator) (column 4 line 57 to column 5 line 4),

a transponder (30) detectable by said network (10) (column 5 lines 14 to 42), said transponder (30) including means for transmitting identification information (i.e. unique information) corresponding to said transponder (30) (column 1 lines 24 to 28; column 2 lines 16 to 26; column 3 lines 43 to 51), and

Means for accessing and reporting internal network access point information in association with said identification information (column 6 lines 12 to 35).

However, Bolavage et al. did not explicitly disclose that a transponder detectable by said wireless access points of said computer network.

In the same field of endeavor of data communication network, Heiman et al. teach that a transponder (14, 16, or 22-28) detectable by said wireless access points (18A-18C) of said computer network (12) (column 3 lines 44 to 44; see Figure 1) in order to transmit and receive data information without interruption of data communication services.

One of ordinary skilled in the art recognizes the need to add a transponder detectable by said wireless access points of said computer network of Heiman et al. in the tags detectable by said smart interrogator of a communication system of Bolavage et al. because Bolavage et al. suggest it is desired to provide tags transmit information to a smart interrogator to forward over a data network for registered client (column 3 lines 35 to 42; see Figure 1) and Heiman et al. teach that a plurality of wireless devices detectable by said wireless access points of said computer

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network (column 3 lines 55 to column 4 lines 44) in order to provide functionality in a facility using a wireless computer network. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add a transponder detectable by said wireless access points of said computer network of Heiman et al. in the tags detectable by said smart interrogator of a communication system of Bolavage et al. with the motivation for doing so would have been to provide additional functionality in a facility using a wireless data communication system.

Referring to claim 2, Bolavage et al. in view of Heiman et al. disclose a transponder as recited in claim 1, Bolavage et al. disclose further including a memory (not label) and wherein said means for transmitting a signal includes means for transmitting signals representing data stored in said memory (column 1 line 61 to column 2 line 3).

Referring to claim 15, Bolavage et al. in view of Heiman et al. disclose a transponder as recited in claim 1, Heiman et al. disclose wherein said means for receiving an interrogation signal includes means for receiving an interrogation signal from an access point (18) of said standard wireless data network (10) (column 2 lines 31 to 53; column 5 lines 26 to 50; see Figures 1 and 4).

Referring to claims 7 and 8, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 6, Bolavage et al. disclose further including means for associating internal

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network access point information with geographical locations (i.e. position) (column 5 lines 14 to 42; column 6 line 66 to column 7 line 11).

Referring to claim 9, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 6, Bolavage et al. disclose further including means for determining proximity of said transponder (30) to an access point (22) (column 5 lines 14 to 42).

Referring to claims 13 and 14, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 9 above, the claims 13 and 14 same in that the claims 7 and 8 already addressed above therefore claims 13 and 14 are also rejected for the same reasons given with respect to claims 7 and 8.

Referring to claim 10, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 9, Bolavage et al. disclose wherein said means for determining proximity includes triangulation means (i.e. Global positioning system chip of smart interrogator 22 to satellite 24) (column 5 lines 14 to 42; see Figure 1).

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolavage et al. (US# 6,509,828) in view of Heiman et al. (US# 6,587,034) as applied to claim 2 above, and in view of Welles, II et al. (US# 5,691,980).

Referring to claim 3-5, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 2, however, Bolavage et al. in view of Heiman et al. did not explicitly disclose means for sensing a condition of said device and further including means responsive to a detected change of condition for controlling said means for transmitting a signal.

In the same field of endeavor of wireless communication system, Welles, II et al. teach that means for sensing a condition (68) of said device (10) (column 5 lines 27 to 38; see Figures 1 and 2) and further including means responsive to a detected change of condition for controlling said means for transmitting a signal (column 1 line 47 to column 2 line 16; column 5 lines 4 to 23) in order to transmit the condition of temperature or pressure of the unit to the central station.

One of ordinary skilled in the art recognizes the need to add sensors in the tracking units and a responsive to a detected change of condition of Welles, II et al. in the tag of Bolavage et al. in view of Heiman et al. because Bolavage et al. suggest it is desired to provide the tag with sensor device to conduct interrogation with the central station (column 1 lines 28 to 39) and Welles, II et al. teach that a tracking unit with sensor devices to communicate the messages and commands with the central station (column 4 lines 1 to 16) in order to enhance reliability of the communication. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add sensors in the tracking units and a responsive to a detected change of condition of Welles, II et al. in the tag of Bolavage et al. in view of Heiman et al. with the motivation for doing so would have been to provide the tracking asset system has the capability to independently determine and report the status of the tag remotely from a central station.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolavage et al. (US# 6,509,828) in view of Heiman et al. (US# 6,587,034) as applied to claim 9 above, and in view of Raleigh et al. (US# 6,101,399).

Referring to claim 11, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 9, however, Bolavage et al. in view of Heiman et al. did not explicitly disclose means for determining proximity includes quadratic optimization means.

In the same field of endeavor of wireless communication system, Raleigh et al. teach that means for determining proximity includes quadratic optimization means (column 3 lines 34 to 54; column 18 lines 1 to 19) in order to optimum transmit beam pattern.

One of ordinary skilled in the art recognizes the need to use the quadratic optimization means to determine the proximity of Raleigh et al. in global positioning system to satellite of Bolavage et al. in view of Heiman et al. because Bolavage et al. suggest it is desired to provide information regarding the location of the interrogator and an approximate location for the tags by using a global positioning system to satellite (column 5 lines 14 to 30) and Raleigh et al. teaches that determining proximity using the quadratic optimization means (column 3 lines 33 to 55; see Figure 1) in order to find the distance of mobiles object to the base station. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use the quadratic optimization means to determine the proximity of Raleigh et al. in global positioning system to satellite of Bolavage et al. in view of Heiman et al. with the motivation for doing so would have been to provide the distance of tags from the smart interrogator in order to collect the data and resolves them into positional estimates.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bolavage et al. (US# 6,509,828) in view of Heiman et al. (US# 6,587,034) as applied to claim 9 above, and in view of Gamlyn et al. (US# 5,749,367).

Referring to claim 12, Bolavage et al. in view of Heiman et al. disclose a system as recited in claim 9, however, Bolavage et al. in view of Heiman et al. did not explicitly disclose means for determining proximity includes a neural network.

In the same field of endeavor of wireless communication system, Gamlyn et al. teach that means for determining proximity includes a neural network (column 1 lines 30 to 64) in order to obtain the monitor changes in the functioning or performance of a person.

One of ordinary skilled in the art recognizes the need to determining the proximity includes a neural network of Gamlyn et al. in the determining the position by the network links of Bolavage et al. in view of Heiman et al. because Bolavage et al. suggest it is desired to provide information regarding the position of the interrogator and an approximate location for the tags by using a global positioning system to satellite and network links (column 5 lines 14 to 30; see Figure 1) and Gamlyn et al. teaches that determining proximity includes a neural network (column 7 lines 26 to 48) in order to determine the vector is within or beyond a threshold range of the reference vectors. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to determining the proximity includes a neural network of Gamlyn et al. in the determining the position by the network links of Bolavage et al.

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in view of Heiman et al. with the motivation for doing so would have been to provide an output a signal in order to initiate an event such as the generation of an alarm or the storage of data.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bianchi et al. (US# 6,587,479) disclose an architecture for signal distribution in wireless data network.

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Hamilton et al. (US# 6,496,499) disclose a control system and associated method for coordinating isochronous devices accessing a wireless network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 703-305-3867. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nam Nguyen
August 1, 2003



BRIAN ZIMMERMAN
PRIMARY EXAMINER